MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017 / 2018

TPM 7011 – SOFTWARE PROJECT MANAGEMENT

(All sections / Groups)

6 OCTOBER 2017
8:00 P.M. – 10:00 P.M.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 6 pages (including cover page) with 5 Questions only.

2. Attempt **FOUR** out of **FIVE** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please print all your answers in the Answer Booklet provided.

Question 1 (2 + 5 + 3 marks)

You are the project manager for new software engineering project for an integrated student management system. The project develops a new software based on software life cycle where every processes in the organization is done manually with minor computerized documentation used at various departments.

a) State the main documents you would use to prepare the project schedule.

b) Given the main activities of the project in the following table:

Activity	Description	Immediate Predecessor	Duration (weeks)
A	Requirements Analysis	-	8
B	Database Design	A	10
C	Software Design	A	3
D	Database	B	7
E	Coding	C	6
F	Documentation	C	7
G	Installation	D,E	6
H	Testing and Training	F	3

Draw a network diagram for this project. Explain the critical path analysis using this diagram.

c) Based on the project in Question 1(b), describe any THREE activities that a project manager can perform in order to ensure that the project schedule is well controlled and the project progress is clearly showed.

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Question 2 (3 + 2 + 3 + 2 marks)

You are the project manager for new software installation project. The project requires a newly purchased software to be installed at 500 computers in your company throughout the different departments in the same building.

a) Explain the following concepts using examples based on this project.
   - Intangible costs
   - Direct costs
   - Indirect costs

b) Describe how you would estimate the costs of this project using Top-down approach.

c) Assuming that the budget at completion (BAC) is RM500,000. If you are now 40% done with the project, though your plan stated that you should have achieved 45% work, calculate your earned value at this time.

d) Based on the information given in Question 2(c), if you have spent RM230,000 , what is your Cost Performance Index (CPI)?

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Question 3 (2 + 3 + 2 + 3 marks)

You are the project manager of a Nationwide Integrated System Upgrade project for a multinational company in Malaysia. Your project team consists of 20 project team members around Malaysia. Each member will be upgrading a software in different computers at a branch office of the multinational company.

a) Discuss the main processes you would conduct in ensuring the quality of work in this project.

b) Describe any THREE types of diagrams you can use for Quality Control in this project.

c) Calculate the number of communications channels between the team members of this project.

d) Identify THREE main categories of stakeholders and prepare a stakeholder analysis for project communications in this project.

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Question 4 (3 + 2 + 2 + 3 marks)

You are the project manager for a project that will create a new and improved Web portal for your company. Currently you have a team of three programmers and two content developers who have created the existing portal and are now maintaining the portal. There are about two million users of this portal from around the world.

a) Bearing in mind the need to maintain the existing portal, discuss how you would plan the team for this project.

b) Explain how any TWO of the following organizational theories can help you in identifying the team members of this project.
   a. Maslow's Hierarchy of Needs
   b. Herzberg's Theory of Motivation
   c. McClelland's Acquired Needs Theory
   d. McGregor's Theory of X and Y

c) Identify TWO possible risks for each of the following categories:
   - Technology risk
   - People risk

d) Prepare a probability/impact matrix for the risks identified in Question 4 (c). Write down any assumptions that you have to support your values.

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Question 5 (2 + 3 + 3 + 2 marks)

You are the project manager for a software development project for an accounting system that will operate over the Internet. Based on your research, you have discovered it will cost you RM25,000 to write your own code. Once the code is written you estimate that you will spend RM3,000 per month updating the software with client information, government regulations, and maintenance.

MySoftware Sdn Bhd has proposed to write the code for your company and charge a fee based on the number of clients using the system every month. The vendor will charge you RM5 per month per user of the system. You estimate that you will have about 1,200 clients using the system per month. However, you will need an in-house accountant to manage the time and billing of the system, so this will cost you an extra RM1,200 per month.

a) Give TWO advantages and TWO disadvantages of outsourcing a software project.

b) Explain how you would decide whether to write your own code or outsource the project to MySoftware Sdn Bhd by analyzing the information given.

c) Describe the type of contract that should be used if you decide to employ MySoftware Sdn Bhd to develop the system. What items should be in the contract for you to ensure that the company delivers according to your requirements?

d) Discuss how project management skills can help you manage this project better if you choose to employ MySoftware Sdn Bhd.

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